

UNITED STATES PATENT AND TRADEMARK OFFICE



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

CONFIRMATION NO. ATTORNEY DOCKET NO. APPLICATION NO. FILING DATE FIRST NAMED INVENTOR P 280117 5337 Jaakko Vihriala 09/830,881 05/02/2001 **EXAMINER** 10/13/2004 909 7590 WILLIAMS, LAWRENCE B PILLSBURY WINTHROP, LLP P.O. BOX 10500 ART UNIT PAPER NUMBER MCLEAN, VA 22102 2634

DATE MAILED: 10/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary		Application	n No.	Applicant(s)	
		09/830,88	11	VIHRIALA, JAAKKO	
		Examiner		Art Unit	
			B Williams	2634	
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply					
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).					
Status					
1)	Responsive to communication(s) filed o	n 02 May 2001			
2a)□	This action is FINAL . 2b) ☐ This action is non-final.				
·	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.				
Dispositi	on of Claims				
	Claim(s) is/are rejected. Claim(s) is/are objected to.				
Applicati	on Papers				
9) ☐ The specification is objected to by the Examiner. 10) ☐ The drawing(s) filed on <u>02 May 2001</u> is/are: a) ☐ accepted or b) ☑ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.					
Priority (ınder 35 U.S.C. § 119				
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) □ All b) □ Some * c) □ None of: 1. □ Certified copies of the priority documents have been received. 2. □ Certified copies of the priority documents have been received in Application No 3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.					
Attachment(s) 1) 🔯 Notice of References Cited (PTO-892) 4) 🔲 Interview Summary (PTO-413)					
2)	te of References Cited (PTO-892) te of Draftsperson's Patent Drawing Review (PTO-1 mation Disclosure Statement(s) (PTO-1449 or PTC or No(s)/Mail Date <u>2</u> .		Paper No(s)/Mai		

DETAILED ACTION

Drawings

- 1. The drawings are objected to because:
- a.) In Fig. 1, the items contained need to contain a text label. It is office policy to request from applicants that submitted figures contain both text and numerical labels to allow individuals viewing each figure to be able to determine the designation of each element in the figure without having to go into the specifications.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. Figures 1 - 4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The abstract of the disclosure is objected to because:

a.) Examiner suggests applicant delete line 16 "(Figure 6)".

Correction is required. See MPEP § 608.01(b).

4. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Allowable Subject Matter

- 5. Claims 1-18 are allowed.
- 6. The following is a statement of reasons for the indication of allowable subject matter:

 The instant application relates to a method of processing multipath-propagated signal components of a signal in a communications system. A thorough and exhaustive search of prior art records has failed to teach a method or a computer program product to cause a microprocessor to perform a method of processing multipath-propagated signal in a communications system comprising "matching the one or more taps to a second matched filter shorter than the first matched filter, calculating a weighting value for the impulse response using statistical methods on the basis of the one or more taps in the second matched filter, comparing a deviation between the weighting value and a centre point of the second matched filter with a threshold value set for the deviation, moving the second matched filter forward when the

Art Unit: 2634

matched filter backward when the deviation undershoots the threshold value set for undershooting the deviation, and repeating the calculating a weighting value, comparing a deviation, moving the second matched filter forward moving the second matched filter backward during reception of the signal" along with the remaining limitations of claims 1 and 13, respectively. Neither does the prior art teach "a RAKE receiver in a communications system, which receiver comprises: means for matching the one or more taps to a second matched filter which is shorter than the first matched filter, means for comparing a deviation between a weighting value and a centre point of the second matched filter with a threshold value set for the deviation, means for moving the second matched filter onward when the deviation exceeds the threshold value set for exceeding the deviation, means for moving the second matched filter backward when the deviation undershoots the threshold value set for undershooting the deviation, and means for repeating the last four steps during the reception of the signal" along with the remaining limitations of claim 7.

Conclusion

- 7. This application is in condition for allowance except for the following formal matters:
 - a.) Drawing objections as noted above.
 - b.) Specification objections as noted above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Application/Control Number: 09/830,881

Art Unit: 2634

A shortened statutory period for reply to this action is set to expire TWO MONTHS

from the mailing date of this letter.

8. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Lawrence B Williams whose telephone number is 571-272-3037.

The examiner can normally be reached on Monday-Friday (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lawrence B. Williams

lbw

October 6, 2004

AMANDA T. L'E PRIMARY EXAMINER

Amanderse.

Page 5